

**TABLE 10-B DEFAULT R-VALUES FOR BUILDING MATERIALS**

<u>Material</u>	<u>Nominal Size</u> <u>(in.)</u>	<u>Actual Size</u> <u>(in.)</u>	<u>R-Value</u> <u>(Heat Capacity)</u>
<u>Air cavity (unventilated), between metal studs at 16 inches on center<sup>1</sup></u>	-	-	<u>0.79</u>
<u>Air cavity (unventilated), all other depths and framing materials<sup>1</sup></u>	-	-	<u>0.91</u>
<u>Airfilm, exterior surfaces<sup>2</sup></u>	-	-	<u>0.17</u>
<u>Airfilm, interior horizontal surfaces, heat flow up<sup>2</sup></u>	-	-	<u>0.61</u>
<u>Airfilm, interior horizontal surfaces, heat flow down<sup>2</sup></u>	-	-	<u>0.92</u>
<u>Airfilm, interior vertical surfaces<sup>2</sup></u>	-	-	<u>0.68</u>
<u>Brick at R-0.12/in.</u>	<u>4</u>	-	<u>0.48</u>
<u>Carpet and rubber pad</u>	-	-	<u>1.23</u>
<u>Concrete at R-0.0625/in.</u>	-	<u>2</u>	<u>0.13 (HC-4.8)</u>
	-	<u>4</u>	<u>0.25 (HC-9.6)</u>
	-	<u>6</u>	<u>0.38 (HC-14.4)</u>
	-	<u>8</u>	<u>0.50 (HC-19.2)</u>
	-	<u>10</u>	<u>0.63 (HC-24.0)</u>
	-	<u>12</u>	<u>0.75 (HC-28.8)</u>
<u>Concrete masonry units, solid grouted, lightweight (95 lbs/ft<sup>3</sup>)</u>	<u>6</u>	-	<u>0.80 (HC-11.4)</u>
<u>Concrete masonry units, solid grouted, normal weight (135 lbs/ft<sup>3</sup>)</u>	<u>6</u>	-	<u>0.51 (HC-13.2)</u>
<u>Concrete masonry units, partly grouted, lightweight (95 lbs/ft<sup>3</sup>)</u>	<u>6</u>	-	<u>1.33 (HC-6.7)</u>
<u>Concrete masonry units, partly grouted, normal weight (135 lbs/ft<sup>3</sup>)</u>	<u>6</u>	-	<u>0.82 (HC-9.0)</u>
<u>Concrete masonry units, solid grouted, lightweight (95 lbs/ft<sup>3</sup>)</u>	<u>8</u>	-	<u>1.05 (HC-15.5)</u>
<u>Concrete masonry units, solid grouted, normal weight (135 lbs/ft<sup>3</sup>)</u>	<u>8</u>	-	<u>0.69 (HC-17.9)</u>
<u>Concrete masonry units, partly grouted, lightweight (95 lbs/ft<sup>3</sup>)</u>	<u>8</u>	-	<u>1.44 (HC-9.6)</u>
<u>Concrete masonry units, partly grouted, normal weight (135 lbs/ft<sup>3</sup>)</u>	<u>8</u>	-	<u>0.98 (HC-12.0)</u>
<u>Concrete masonry units, solid grouted, lightweight (95 lbs/ft<sup>3</sup>)</u>	<u>10</u>	-	<u>1.30 (HC-19.7)</u>
<u>Concrete masonry units, solid grouted, normal weight (135 lbs/ft<sup>3</sup>)</u>	<u>10</u>	-	<u>0.87 (HC-22.6)</u>
<u>Concrete masonry units, partly grouted, lightweight (95 lbs/ft<sup>3</sup>)</u>	<u>10</u>	-	<u>1.61 (HC-11.9)</u>
<u>Concrete masonry units, partly grouted, normal weight (135 lbs/ft<sup>3</sup>)</u>	<u>10</u>	-	<u>1.11 (HC-14.8)</u>
<u>Concrete masonry units, solid grouted, lightweight (95 lbs/ft<sup>3</sup>)</u>	<u>12</u>	-	<u>1.53 (HC-23.9)</u>
<u>Concrete masonry units, solid grouted, normal weight (135 lbs/ft<sup>3</sup>)</u>	<u>12</u>	-	<u>1.06 (HC-27.2)</u>
<u>Concrete masonry units, partly grouted, lightweight (95 lbs/ft<sup>3</sup>)</u>	<u>12</u>	-	<u>1.75 (HC-14.2)</u>
<u>Concrete masonry units, partly grouted, normal weight (135 lbs/ft<sup>3</sup>)</u>	<u>12</u>	-	<u>1.23 (HC-17.5)</u>
<u>Flooring, wood subfloor</u>	-	<u>0.75</u>	<u>0.94</u>
<u>Gypsum board</u>	-	<u>0.5</u>	<u>0.45</u>
	-	<u>0.625</u>	<u>0.56</u>
<u>Metal deck</u>	-	-	<u>0</u>
<u>Roofing, built-up</u>	-	<u>0.375</u>	<u>0.33</u>
<u>Sheathing, vegetable fiber board, 0.78 in.</u>	-	<u>0.78</u>	<u>2.06</u>
<u>Soil at R-0.104/in.</u>	-	<u>12</u>	<u>1.25</u>
<u>Steel, mild</u>		<u>1</u>	<u>0.0031807</u>
<u>Stucco</u>	-	<u>0.75</u>	<u>0.08</u>

<u>Material</u>	<u>Nominal Size</u> <u>(in.)</u>	<u>Actual Size</u> <u>(in.)</u>	<u>R-Value</u> <u>(Heat Capacity)</u>
<u>Wood, 2 × 4 at R-1.25/in.</u>	<u>4</u>	<u>3.5</u>	<u>4.38</u>
<u>Wood, 2 × 6 at R-1.25/in.</u>	<u>6</u>	<u>5.5</u>	<u>6.88</u>
<u>Wood, 2 × 8 at R-1.25/in.</u>	<u>8</u>	<u>7.25</u>	<u>9.06</u>
<u>Wood, 2 × 10 at R-1.25/in.</u>	<u>10</u>	<u>9.25</u>	<u>11.56</u>
<u>Wood, 2 × 12 at R-1.25/in.</u>	<u>12</u>	<u>11.25</u>	<u>14.06</u>
<u>Wood, 2 × 14 at R-1.25/in.</u>	<u>14</u>	<u>13.25</u>	<u>16.56</u>

<sup>1</sup> There is no credit for cavities that are open to outside air.

<sup>2</sup> Air films do not apply to air cavities within an assembly.